

REMARKS

In light of the following remarks and above amendments, reconsideration and allowance of this application are respectfully requested.

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 USC §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

Claims 23, 24, 27, 28, 31, 32, 35, 36, 39 and 40 and amended claims 18, 22, 26, 30, 34 and 38 are in this application. Claim 44 is newly added.

In the Advisory Action of January 7, 2004, the Examiner maintained the rejection of claims 18, 22-24, 26-28, 30-32, 34-36 and 38-40, but provided a new grounds for the rejection in the Final Office Action of October 21, 2003.

At page 2 of the Advisory Action, the Examiner stated that the argument that the applicant is arguing concerning the difference between time stamps and time codes is not clearly recited in the claims. Thus, the Examiner concluded that applicant appears to be arguing unclaimed features of use of the time stamp. It is respectfully submitted that applicant has amended all the independent claims in order to clearly identify the difference between the time stamps of the present invention and the time codes of the applied references. Therefore, it is believed that the additional characteristic of the time stamps (“time stamp corresponding to a time of receipt...in synchronization with said external clock signal”, Emphasis ours) added to the

independent claims is read into the claims to distinguish such claims over the time code functionality of the applied references. While the time code of the references measures time passage between two portions of the transport stream, the time stamp of the present invention measures the time of one or more portions of a time stream to an external reference (i.e., external clock). This feature, which pertains only to time stamps, is clearly not shown in the references applied by the Examiner.

Furthermore, applicant has added the limitation "wherein when said arrival time stamp is discontinuous, output timing of the transport packet is controlled in accordance with the discontinuity information." It is respectfully submitted that the references applied by the Examiner also do not teach the above-recited limitation added to the independent claims. This limitation refers to how to output the transport packets when a discontinuity is detected.

Applicant therefore respectfully requests that the rejections applied by the Examiner in the Advisory Action be withdrawn.

At paragraph 3 of the outstanding Final Office Action of October 21, 2003, the Examiner objected to claims 19 and 20 because they included a typographical error. Claims 19 and 20 have been cancelled herein. Applicant therefore respectfully requests that the objection to claims 19 and 20 be withdrawn as moot.

At paragraph 5 of the outstanding Final Office Action of October 21, 2003, the Examiner rejected claims 19, 20, 22-24, 26-28, 31, 32, 34-36 and 38-40 under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Further, claims 19, 20, 22-24, 26-28, 31, 32, 34-36 and 38-40 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing

to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner stated that the claims are either not adequately disclosed or are misdescriptive of what is disclosed and therefore indefinite. Claims 19 and 20 have been canceled herein. Claims 22, 26, 34 and 38 have been amended herein to clearly and distinctly describe the recording apparatus. In particular, the phrase "said information and the time stamp is utilized to control the output of said transport packet" has been removed from claims 22, 26, 34 and 38.

Applicant therefore respectfully requests that the rejection of claims 19, 20, 22-24, 26-28, 31, 32, 34-36 and 38-40 under 35 U.S.C. §112, first and second paragraphs be withdrawn.

At paragraph 7 of the outstanding Final Office Action of October 21, 2003, the Examiner rejected claims 18 and 30 under 35 U.S.C. §102(b) as being anticipated by Adachi et al. (U.S. Patent No. 5,146,448). Applicant respectfully traverses the rejection.

Amended independent claim 18, recites in part, "A recording apparatus comprising... a time-stamp generator operable to generate an arrival time stamp corresponding to a time of receipt of a transport packet in synchronization with said external clock signal..." (Underlining and Bold added for emphasis.)

Adachi teaches an invention that relates to a time code recording and reproducing apparatus for recording and reproducing time codes corresponding to a digital signal (Abstract). Specifically, Adachi is concerned with converting a first time code into a second time code (column 3, lines 50-56) and does not suggest or teach any subject matter relating to time stamps corresponding to a time of receipt of a transport packet in synchronization with an external clock, as does independent claim 18. The time codes mentioned in Adachi refer to

internal clocks (column 5, lines 11-19 and lines 55-59). The time code of Adachi is a code used for the transmission and identification of time signals and represents a recording position of a PCM sample. These recorded positions basically represent a timeline. Furthermore, a time code is a separate track on which time references are continually recorded as an aid to editing, such as converting one time code to another time code. In other words, signals can be identified by recorded time references of PCM sample positions.

In contrast, a time stamp is a data field in which is recorded the cumulative variable queuing delay experienced by a packet or the time at which an event took place. In other words, it is the current time of an event that is recorded by a computer and therefore represents a time value. The time stamp is used to record time in relation to a particular starting point and no PCM sampling is required. In other words, a time stamp aids in realizing a delay in transmission based on a discontinuity and is the time of receipt of each packet relative to an external clock. The time codes of Adachi do not realize a delay in transmission and instead relate to an internal clock. As a result, there is a difference between the expressions “time codes” and “time stamps” and these two concepts are not the same. Indeed, Adachi is concerned with time codes, and not time stamps because PCM samples are required for converting one time code to another time code in order to synchronize two frames.

Furthermore, the additional limitation “wherein when said arrival time stamp is discontinuous, output timing of the transport packet is controlled in accordance with the discontinuity information” is also not taught by Adachi because this limitation refers to how to output transport packets when a discontinuity is detected by utilizing time stamps. Therefore amended independent claim 18 is believed to be distinguishable from Adachi.

For reasons similar to those described above with regard to amended independent claim 18, amended independent claim 30 is also believed to be distinguishable from Adachi.

Applicant therefore respectfully requests the rejection of claims 18 and 30 under 35 U.S.C. §102(b) be withdrawn.

At paragraph 9 of the outstanding Final Office Action of October 21, 2003, the Examiner rejected claims 18 and 30 under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Menezes (U.S. Patent No. 4,340,916). Applicant respectfully traverses the rejection. Applicant respectfully traverses the rejection.

Amended independent claim 18, recites in part, "A recording apparatus comprising... a time-stamp generator operable to generate an arrival time stamp corresponding to a time of receipt of a transport packet in synchronization with said external clock signal..." (Underlining and Bold added for emphasis.)

Menezes teaches a method for detecting discontinuities in a sequence of time code addresses recorded on a tape (Abstract). Specifically, the value of the current time code address and the counted tape address at the time of discontinuity is detected and can be used to define both the location and magnitude of the discontinuity (Abstract). Menezes does not suggest or teach any subject matter relating to time stamps corresponding to a time of receipt of a transport packet in synchronization with an external clock, as does independent claim 18. The time codes mentioned in Menezes refer to internal clocks (column 11, lines 35-51). The time code of Menezes is a code used for the transmission and identification of the location of the recorded information signals. These recorded locations basically represent a timeline. A time code is basically a separate track on which time references are continually recorded as an aid to editing

and provide a reliable means for determining tape location, as is the case in Menezes. In other words, signals can be identified by recorded time references.

In contrast, a time stamp is a data field in which is recorded the cumulative variable queuing delay experienced by a packet or the time at which an event took place. In other words, it is the current time of an event that is recorded by a computer and therefore represents a time value. The time stamp is used to record time in relation to a particular starting point. In other words, a time stamp aids in realizing a delay in transmission based on a discontinuity and is the time of receipt of each packet relative to an external clock. The time codes of Menezes do not realize a delay in transmission and instead relate to an internal clock. As a result, there is a difference between the expressions “time codes” and “time stamps” and these two concepts are not the same.

Furthermore, the additional limitation “wherein when said arrival time stamp is discontinuous, output timing of the transport packet is controlled in accordance with the discontinuity information” is also not taught by Menezes because this limitation refers to how to output transport packets when a discontinuity is detected by utilizing time stamps. Therefore amended independent claim 18 is believed to be distinguishable from Applicant’s Admitted Prior Art and Menezes.

For reasons similar to those described above with regard to amended independent claim 18, amended independent claim 30 is also believed to be distinguishable from Applicant’s Admitted Prior Art and Menezes.

Applicant therefore respectfully requests the rejection of claims 18 and 30 under 35 U.S.C. §103(a) be withdrawn.

At paragraph 10 of the outstanding Final Office Action of October 21, 2003, the Examiner rejected claims 18 and 30 under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Larson (U.S. Patent No. 4,569,042). Applicant respectfully traverses the rejection.

Amended independent claim 18, recites in part, "A recording apparatus comprising...an information generator...**wherein when said arrival time stamp is discontinuous, output timing of the transport packet is controlled in accordance with the discontinuity information.**" (Underlining and Bold added for emphasis.)

Larson teaches a method of measuring a signal transmission delay through a transmission path that involves transmitting across a path in one direction a first signal indicating time of its transmittal and transmits across a path in the other direction a second signal indicating the time of transmittal. The round-trip signal transmission delay is then determined as the difference between the time of transmittal of the first signal and the time of receipt of the second signal (column 2, lines 50-55). Larson does not suggest or teach a time stamp generating circuit for counting the number of pulses of an input clock signal and generating a time stamp (time_stamp_counter) corresponding to a count value that is to be output to an information adding circuit because Larson is not counting pulses to determine continuity. Furthermore, Larson does not teach that when an arrival time stamp is discontinuous, output timing of the transport packet is controlled in accordance with the discontinuity information because this limitation refers to how to output transport packets when a discontinuity is detected by utilizing time stamps. However, Larson is not concerned with the continuity or discontinuity of data streams.

Instead, Larson takes the difference of two transmitted signals in opposite directions and halves the result in order to determine a transmission delay. This is not the same as providing a discontinuity indicator, which indicates pieces of the time_stamp_counter are continuous and outputting a flag to an information adding circuit. As a result, the time stamp concept is not utilized in the same way in Larson as in the claims of the present invention. The present invention specifically mentions the use of a time_stamp_counter methodology and controlling output timing when an arrival time stamp is discontinuous, both of which are not disclosed by Larson. Therefore amended independent claim 18 is believed to be distinguishable from the applied combination of Applicant's Admitted Prior Art and Larson.

For reasons similar to those described above with regard to amended independent claim 18, amended independent claim 30 is also believed to be distinguishable from Applicant's Admitted Prior Art and Larson.

Applicant therefore respectfully requests the rejection of claims 18 and 30 under 35 U.S.C. §103(a) be withdrawn.

The features added to amended independent claims 18 and 30 have also been added to the other independent claims (i.e., Claims 22, 26, 34 and 38) and as such these claims are also believed to be distinguishable from the references applied by the Examiner. Claims 23, 24, 27, 28, 31, 32, 35, 36, 39 and 40 depend from one of amended independent claims 18, 22, 26, 30, 34 and 38 and as such are also believed to be distinguishable from the references applied by the Examiner.

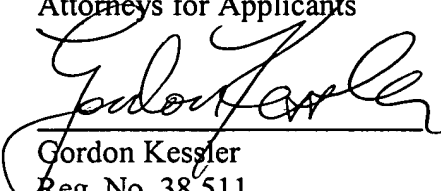
Applicant has further added new claim 44. Applicant submits that the 35 U.S.C. 103(a) rejection relied upon by the Examiner does not apply to claim 44, and submits that the rejection of this claim over 35 U.S.C. 103(a) would be improper.

It is to be appreciated that the foregoing comments concerning the disclosures in the cited prior art represent the present opinions of the Applicant's undersigned attorney and, in the event, that the Examiner disagrees with any such opinions, it is requested that the Examiner indicate where, in the reference or references, there is the basis for a contrary view.

Please charge any fees incurred by reason of this response and not paid herewith to Deposit Account No. 50-0320.

Respectfully submitted,
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